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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,324	01/14/2004	Sohel Anwar	10541-1828	5381

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EXAMINER

LORENCE, RICHARD M

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,324

Applicant(s)

ANWAR ET AL.

Examiner

Richard M. Lorence

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/14/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is the first Office action on the merits of Application No. 10/758,324 filed on January 14, 2004. Claims 1-20 are currently pending.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 106 and 112 (Figs. 6A-6C), 508 (Fig. 12), 620 (Fig. 13), and 822 (Fig. 15). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

In line 5 of paragraph [0030] "outputs power is reduced" is grammatically awkward.

In the last line of paragraph [0050] "thermocople" should read
- - thermocouple - -.

The "bolder lines" and "lighter lines" referred to in lines 1-2 of paragraph [0051] are not understood. The lines 16, 42 and 44 in Figure 9 all appear to be equally bold.

In line 2 of paragraph [0068] "valve" should read - - value - -.

In line 1 of paragraph [0071] "transfers" should read - - transfer - -.

In line 17 of paragraph [0077] "modulate" should read - - modulated - -.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the control command" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the vehicle dynamics" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the control algorithm" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the motor temperature" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the motor command" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the control algorithm" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

In claims 8 and 9 "the overall performance" lacks proper antecedent basis, and furthermore is vague as to which parameters determine the "overall performance".

In claim 10, it is unclear which of the steps shown in the flowcharts of Figures 12, 16 and/or 17 corresponds to the recited step of "diagnosing the wear of the clutch pack". As best understood the disclosed control results in minimized wear, but there does not appear to be any diagnosis of the wear as claimed.

Claim 16 recites the limitation "the clutch and separator plates of the clutch pack" in line 3. There is insufficient antecedent basis for this limitation in the claim.

In claim 18 the limitation "control the valves for energy dissipation calculations and compensation" is not at all understood.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Wakahara et al. '865 which discloses a method of controlling a hydraulic coupling system including the steps of pressurizing fluid in an actuator 66g, 66h coupled to the multi-disk clutch to engage the clutch pack 66b, 66d; pumping fluid through the clutch pack to cool the clutch pack (note column 8, lines 2-30, the clutch is a wet clutch); and controlling a set of valves 120, 128 and the pump 104 with a microcontroller 18. The valves and pump are controlled by the microcontroller in response to signals related to the vehicle dynamics as shown schematically in Figure 1, such as oil pressure (sensors 132, 143) and oil temperature (sensor 130).

Prior Art Citation


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of the prior art references cited by applicant which are listed on the form PTO-1449 submitted with the IDS filed on January 14, 2004 has been considered. The examiner further cites Collins et al. '089, Dairokuno et al. '756, Böhme

al. '898, Duan et al. '523, Hayashi et al. '024 and Anwar et al. '252 (JP) each of which show hydraulic control systems for controlling the actuation and cooling of a clutch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard M. Lorence whose telephone number is (571) 272-7094. The examiner can normally be reached on Mondays through Fridays from 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Richard M. Lorence
Primary Examiner
Art Unit 3681

Lorence/rml